

**RECEIVED
CENTRAL FAX CENTER****SEP 29 2006****Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method comprising:

supplying a negative voltage to at least one deselected wordline of a non-volatile memory array from a decoder coupled to the at least one deselected wordline during a programming operation on a selected wordline;

providing the negative voltage ~~and a control negative voltage~~ to the decoder, and providing a control negative voltage to a substrate of a transistor of the decoder coupled to pass the negative voltage to the at least one deselected wordline; and

supplying a positive voltage to the selected wordline of the non-volatile memory array to program the selected wordline while supplying the negative voltage.

Claim 2 (canceled)

Claim 3 (previously presented): The method of claim 1, further comprising supplying the negative voltage to all wordlines of the non-volatile memory array except the selected wordline.

Claim 4 (previously presented): The method of claim 1, further comprising providing a second positive voltage signal to a selected bitline of the non-volatile memory array.

Claim 5 (previously presented): The method of claim 4, further comprising reducing a leakage current through at least one deselected cell coupled to the selected bitline of the non-volatile memory array while programming the selected wordline, wherein the at least one deselected cell comprises a multi-level cell of a flash memory.

Claim 6 (canceled)

Claim 7 (cancel)

Claim 8 (canceled)

Claim 9 (previously presented): The method of claim 1, further comprising supplying the negative voltage to the deselected wordline during a first time period, and

supplying a positive voltage to the same wordline during a second time period to program at least one memory cell coupled thereto.

Claim 10 (previously presented): An apparatus comprising:

a decoder to supply a negative voltage to a deselected address line of a memory array, the decoder comprising a first transistor of a first polarity coupled to receive a negative control voltage and the negative voltage and to pass the negative voltage to the deselected address line, and a second transistor of a second polarity coupled to the first transistor and the deselected address line to pass a program pulse to the deselected address line if it becomes a selected address line, the decoder further comprising a pre-driver circuit to control an intermediate node coupled to a gate terminal of the first transistor and a gate terminal of the second transistor.

Claim 11 (original): The apparatus of claim 10, wherein the decoder is further coupled to supply a positive voltage to the same address line if it is selected to be programmed.

Claims 12 – 13 (canceled)

Claim 14 (previously presented): The apparatus of claim 10, wherein the pre-driver circuit is to disable the first transistor if the deselected address line becomes a selected address line.

Claim 15 (original): The apparatus of claim 10, further comprising a plurality of memory cells coupled to the decoder via the deselected address line.

Claim 16 (original): The apparatus of claim 15, wherein the plurality of memory cells comprise multi-level cells of a flash memory.

Claim 17 (previously presented): An article comprising a machine-readable storage medium containing instructions that if executed enable a system to:

supply a negative voltage to at least one deselected wordline of a memory array;

provide a negative control voltage to a substrate of a transistor coupled to pass the negative voltage to the at least one deselected wordline;

supply a positive voltage to a selected wordline of the memory array to program the selected wordline while the negative voltage is supplied to the at least one deselected wordline;
and

control a first pre-driver circuit coupled to the at least one deselected wordline to pass a positive control voltage to a first control node coupled to a first pair of transistors of different polarities, and to control a second pre-driver circuit coupled to the selected wordline to discharge a second control node coupled to a second pair of transistors of different polarities.

Claim 18 (canceled)

Claim 19 (previously presented): The article of claim 17, further comprising instructions that if executed enable the system to supply the negative voltage to all wordlines of the memory array except the selected wordline.

Claim 20 -21 (canceled)

Claim 22 (previously presented): A system comprising:

a nonvolatile memory array having a plurality of memory cells each coupled to a wordline and a bitline;

a decoder coupled to the nonvolatile memory array to supply a negative voltage to a deselected wordline of the nonvolatile memory array, wherein the decoder comprises a first transistor of a first polarity to pass the negative voltage to the deselected wordline and a second transistor of a second polarity coupled to the first transistor to pass a program voltage, if the deselected wordline becomes a selected wordline; and

a wireless interface coupled to the nonvolatile memory array.

Claim 23 (original): The system of claim 22, wherein the decoder is further coupled to supply a positive voltage to the deselected wordline if it becomes a selected wordline.

Claim 24 (original): The system of claim 22, further comprising a second decoder to supply a positive voltage to a selected wordline while the negative voltage is supplied to the deselected wordline.

Claim 25 (previously presented): The system of claim 22, wherein the first transistor comprises a well coupled to receive a negative control voltage, a source terminal coupled to receive the negative voltage, and a drain terminal coupled to pass the negative voltage to the deselected wordline.

Claim 26 (canceled)

Claim 27 (previously presented): The system of claim 22, further comprising a pre-driver circuit to disable the first transistor if the deselected wordline becomes a selected wordline, wherein the pre-driver circuit comprises a transistor chain coupled to an intermediate node coupled to a gate terminal of the first transistor, wherein the transistor chain is to provide a ground potential to the intermediate node to disable the first transistor.

Claim 28 (previously presented): The system of claim 22, wherein the nonvolatile memory array comprises a flash memory.

Claim 29 (original): The system of claim 28, wherein the flash memory comprises a multi-level cell flash memory.

Claim 30 (original): The system of claim 22, wherein the wireless interface comprises an antenna.

Claim 31 (previously presented): The apparatus of claim 10, wherein the first transistor comprises a well coupled to receive the negative control voltage, a source terminal coupled to receive the negative voltage, and a drain terminal coupled to pass the negative voltage to the deselected address line.

Claim 32 (previously presented): The system of claim 22, further comprising a negative switch coupled to provide the negative voltage and a negative control voltage to the decoder.

Claim 33 (previously presented): The system of claim 32, wherein the negative switch is coupled to further provide the negative voltage and the negative control voltage to a second decoder coupled to another wordline of the non-volatile memory array.

Claim 34 (canceled)

Claim 35 (previously presented): The apparatus of claim 10, wherein the pre-driver circuit further comprises a transistor chain to provide a ground potential to the intermediate node if the deselected address line is selected to be programmed.

Claim 36 (previously presented): The apparatus of claim 35, wherein the transistor chain comprises a plurality of series-coupled transistors of the first polarity having a top transistor having a first terminal coupled to the intermediate node, the first terminal further coupled to a first terminal of a third transistor of the second polarity.

Claim 37 (canceled)

Claim 38 (previously presented): The article of claim 17, further comprising instructions that if executed enable the system to supply the negative voltage to the deselected wordline during a first time period, and supply the positive voltage to the same wordline during a second time period to program at least one memory cell coupled thereto.